



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,746	06/19/2000	Raymond J. Dattwyler	2631.1002-001	3998

21005 7590 10/27/2005

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.  
530 VIRGINIA ROAD  
P.O. BOX 9133  
CONCORD, MA 01742-9133

EXAMINER

SWARTZ, RODNEY P

ART UNIT PAPER NUMBER

1645

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/596,746

**Applicant(s)**

DATTWYLER ET AL.

**Examiner**

Rodney P. Swartz, Ph.D.

**Art Unit**

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 39, 41-43 and 49-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 39, 41-43 and 49-52 is/are allowed.
- 6) ☒ Claim(s) 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1645

### **DETAILED ACTION**

1. Applicants' Response to Office Action, received 26 September 2005, is acknowledged.

Claims 10 and 11 have been amended.

2. Claims 1-11, 39, 41-43, and 49-52 are pending and under consideration.

### **New Sequence Listing Submission**

3. Applicants' Response to Office Action, received 26 September 2005, contains a substitute "Sequence Listing" in paper form; sheets 1-108, which list 86 sequences. However, the substitute "Sequence Listing" in computer readable form only contains two sequences listed as SEQ ID NO:1 and SEQ ID NO:2 (see attached printout). Therefore, the contents of the paper form and the CRF are not the same.

Applicants are required to submit a proper computer readable form containing all of the sequences listed on the paper form.

### **Rejections Maintained**

4. The rejection of claims 10 and 11 under 35 U.S.C. 112, second paragraph, indefiniteness for GenBank accessions numbers, is maintained until such time as a proper computer readable form and paper form of the sequence listings are submitted and entered including sequences labelled SEQ ID NO:85 and SEQ ID NO:86.

### **Conclusion**

5. Claims 10 and 11 are rejected.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney P. Swartz, Ph.D., Art Unit 1645, whose telephone number is (571) 272-0865. The examiner can normally be reached on Monday through Thursday from 5:30 AM to 4:00 PM EST.

Art Unit: 1645

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Lynette F. Smith, can be reached on (571)272-0864.

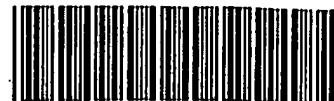
The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RODNEY P. SWARTZ, PH.D.  
PRIMARY EXAMINER  
Art Unit 1645

October 26, 2005



IFW16

## RAW SEQUENCE LISTING

DATE: 09/30/2005

PATENT APPLICATION: US/09/596,746C

TIME: 10:54:52

Input Set : A:\2631.1002-001.txt

Output Set: N:\CRF4\09302005\I596746C.raw

```

4 <110> APPLICANT: Raymond J. Dattwyler
5   Gerald Seinost
6   Daniel Dykhuizen
7   Benjamin J. Luft
8   Maria J.C. Gomes-Solecki
10 <120> TITLE OF INVENTION: Groups of Borrelia Burgdorferi and
11   Borrelia Afzelii That Cause Lyme Disease In Humans
14 <130> FILE REFERENCE: 2631.1002-001
16 <140> CURRENT APPLICATION NUMBER: 09/596,746C
17 <141> CURRENT FILING DATE: 2000-06-19
19 <150> PRIOR APPLICATION NUMBER: 60/140,042
20 <151> PRIOR FILING DATE: 1999-06-18
22 <160> NUMBER OF SEQ ID NOS: 2
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 192
28 <212> TYPE: PRT
29 <213> ORGANISM: borrelia burgdorferi
31 <400> SEQUENCE: 1
32 Cys Asn Asn Ser Gly Lys Asp Gly Asn Thr Ser Ala Asn Ser Ala Asp
33   1           5           10           15
34 Glu Ser Val Lys Gly Pro Asn Leu Thr Glu Ile Ser Lys Lys Ile Thr
35           20           25           30
36 Glu Ser Asn Ala Val Val Leu Ala Val Lys Glu Val Glu Thr Leu Leu
37           35           40           45
38 Thr Ser Ile Asp Glu Leu Ala Lys Ala Ile Gly Lys Lys Ile Lys Asn
39           50           55           60
40 Asp Val Ser Leu Asp Asn Glu Ala Asp His Asn Gly Ser Leu Ile Ser
41 65           70           75           80
42 Gly Ala Tyr Leu Ile Ser Thr Leu Ile Thr Lys Lys Ile Ser Ala Ile
43           85           90           95
44 Lys Asp Ser Gly Glu Leu Lys Ala Glu Ile Glu Lys Ala Lys Lys Cys
45           100          105          110
46 Ser Glu Glu Phe Thr Ala Lys Leu Lys Gly Glu His Thr Asp Leu Gly
47           115          120          125
48 Lys Glu Gly Val Thr Asp Asp Asn Ala Lys Lys Ala Ile Leu Lys Thr
49           130          135          140
50 Asn Asn Asp Lys Thr Lys Gly Ala Asp Glu Leu Glu Lys Leu Phe Glu
51 145          150          155          160
52 Ser Val Lys Asn Leu Ser Lys Ala Ala Lys Glu Met Leu Thr Asn Ser
53           165          170          175
54 Val Lys Glu Leu Thr Ser Pro Val Val Ala Glu Ser Pro Lys Lys Pro
55           180          185          190

```

## RAW SEQUENCE LISTING

DATE: 09/30/2005

PATENT APPLICATION: US/09/596,746C

TIME: 10:54:52

Input Set : A:\2631.1002-001.txt

Output Set: N:\CRF4\09302005\I596746C.raw

```

58 <210> SEQ ID NO: 2
59 <211> LENGTH: 191
60 <212> TYPE: PRT
61 <213> ORGANISM: borrelia burgdorferi
62 <400> SEQUENCE: 2
63
64 Asn Ser Gly Lys Gly Gly Asn Thr Ser Ala Asn Ser Ala Asp Glu Ser
65 1 5 10 15
66 Val Lys Gly Pro Asn Leu Thr Glu Ile Ser Lys Lys Ile Thr Glu Ser
67 20 25 30
68 Asn Ala Val Val Leu Ala Val Lys Glu Ile Glu Thr Leu Leu Ala Ser
69 35 40 45
70 Ile Asp Glu Leu Ala Thr Lys Ala Ile Gly Lys Lys Ile Gln Gln Asn
71 50 55 60
72 Gly Gly Leu Ala Val Glu Ala Gly His Asn Gly Thr Leu Leu Ala Gly
73 65 70 75 80
74 Ala Tyr Thr Ile Ser Lys Leu Ile Thr Gln Lys Leu Asp Gly Leu Lys
75 85 90 95
76 Asn Ser Glu Lys Leu Lys Glu Lys Ile Glu Asn Ala Lys Lys Cys Ser
77 100 105 110
78 Glu Asp Phe Thr Lys Lys Leu Glu Gly Glu His Ala Gln Leu Gly Ile
79 115 120 125
80 Glu Asn Val Thr Asp Glu Asn Ala Lys Lys Ala Ile Leu Ile Thr Asp
81 130 135 140
82 Ala Ala Lys Asp Lys Gly Ala Ala Glu Leu Glu Lys Leu Phe Lys Ala
83 145 150 155 160
84 Val Glu Asn Leu Ala Lys Ala Ala Lys Glu Met Leu Ala Asn Ser Val
85 165 170 175
86 Lys Glu Leu Thr Ser Pro Ile Val Ala Glu Ser Pro Lys Lys Pro
87 180 185 190

```